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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,132	12/06/2004	Shaily Verma	PU020265	6857
24498 7590 11/12/2009 Robert D. Shedd, Patent Operations THOMSON Licensing LLC P.O. Box 5312 Princeton, NJ 08543-5312				
EXAMINER				
SHAND, ROBERTA A				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/517,132

**Applicant(s)**

VERMA ET AL.

**Examiner**

Roberta A. Shand

**Art Unit**

2472

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4, 7-9, 11-18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lucidarme (U.S. 2002/0181468 A1) in view of Katz (U.S. 2006/0291455 A1).

4. Regarding claims 1, 15 and 23. Lucidarme teaches (fig. 1) an apparatus and method for supporting an interworking a mobile communications system, the mobile communications

system having a first support node (30, 31) for interfacing a radio access network (22) to a core network (21) and a second support node (32) for interfacing the mobile communications system to a second communications system (12), the method comprising the steps of: establishing at least one tunneling protocol - user plane tunnel between the IWF and the second support node for transferring data signals (paragraph 43); and establishing at least one tunneling protocol - control plane tunnel between the first support node and the second support node for transferring control signals (paragraph 43).

5. Lucidarme does not teach internetworking between a WLAN and a mobile communication network and providing an IWF associated with the WLAN and coupled to the mobile communications system.
6. Katz teaches (paragraphs 511-516) internetworking between a WLAN and a mobile communication network and providing an Internetworking function (fig. 30, MSC) associated with the WLAN and coupled to the mobile communications system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lucidarme to include Katz WLAN mobile network internerworking to provide an interface between PLMN and non-PLMN networks (abstract)
7. Regarding claims 2 and 16, Lucidarme teaches (fig. 1) the mobile communications network comprises a UMTS network (paragraph 11) the first support node comprises SGSN (30, 31), the second support node comprises a GGSN (32), the tunneling protocol - user plane tunnel comprises a GPRS tunneling protocol - user plane (GTP-U) tunnel (paragraph 43), and the

tunneling protocol - control plane tunnel comprises a GPRS tunneling protocol - control plane (GTP-C) tunnel (paragraph 43).

8. Regarding claims 3 and 17, Lucidarme teaches (fig. 1) the IWF is configured as a logical SGSN with respect to the data signals.
9. Regarding claims 4 and 18, Lucidarme teaches (paragraph 62) defining a GTP tunnel in a GTP-U for at least one PDP context in at least one of the GGSN and the IWF.
10. Regarding claims 7 and 21, Lucidarme teaches (paragraph 43) a GTP-C carries GPRS mobility management functions.
11. Regarding claims 8 and 22, Katz teaches (fig. 6) providing access to both the WLAN and the mobile communications system through a single point of attachment consisting of the GGSN (76).
12. Regarding claim 9, Lucidarme teaches (fig. 1) core network includes, the GGSN (32) and the SGSN (31, 31), and maintaining a connection between a UE (23) and the core network (21) while diverting data to the UE (23) through the at least one GTP-U tunnel between the GGSN (32) and the IWF (BSC, RNC).

13. Regarding claim 11, Katz teaches (paragraphs 32-33) authenticating a UE by the mobile communications network; communicating a result of said authenticating step to the IWF through the GGSN.

14. Regarding claim 12, Lucidarme teaches (paragraphs 62-70) the steps of: registering a coverage area as a different Routing Area with the mobile communications network; and specifying an IWF address and Tunnel Endpoint Identifiers (TEIDs) for said step of establishing the at least one GTP-U tunnel, when one of a Packet Data Protocol request of a modify PDP request is received from a User Equipment.

15. Regarding claim 13, Lucidarme teaches (paragraph 43) the steps of employing the GGSN as a Foreign Agent to handle UE mobility; and informing the SGSN to establish the at least one GTP-U tunnel.

16. Regarding claim 14, Katz teaches (paragraph 236) the step of employing encryption used by the mobile communications network for a user connecting to the WLAN.

17. Regarding claim 24, Lucidarme teaches (paragraphs 62-70) means for registering a wireless local area network coverage area as a new routing area comprises forwarding a packet data protocol context request to said serving GPRS support node.

18. Regarding claim 25, Lucidarme teaches (paragraphs 62-70) means for registering a wireless local area network coverage area as a new routing area comprises forwarding a modify packet data protocol context request to said serving GPRS support node.

19. Regarding claim 26, Lucidarme teaches (paragraphs 62-70) for registering a wireless local area network coverage area as a new routing area further comprises means for receiving a packet data protocol context accept response from said serving GPRS support node.

20. Regarding claim 27, Lucidarme teaches (paragraphs 62-70) means for registering a wireless local area network coverage area as a new routing area further comprises receiving a modified packet data protocol context accept response from said serving GPRS support node.

21. Claims 5, 6, 10, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lucidarme in view of Katz further in view of Hurtt (U.S. 7054945 B2).

22. Regarding claims 5 and 19, as mentioned above Lucidarme and Katz teach all of the limitations of claim 1.

23. Lucidarme and Katz do not explicitly teach defining a GTP tunnel in a GTP-C for at least one Radio Access Bearer (RAB).

24. Hurta teaches (col. 2, lines 28-29) RAB. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lucidarme and Katz to include Hurta's RAB to provide security in the network.

25. Regarding claims 6 and 20, Lucidarme teaches (paragraphs 62-70) defining a GTP tunnel in a GTP-C for at least one PDP context with a same PDP address and APN for tunnel management messages.

26. Regarding claim 10, Lucidarme teaches (fig. 1) the mobile communications network comprises a RNC and the IWF and establishing the at least one GTP-U tunnel couples the IWF of the WLAN to the GGSN of the mobile communications network while bypassing the RNC and the SGSN of the mobile communications network.

### ***Response to Arguments***

27. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***



28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A. Shand whose telephone number is 571-272-3161.

The examiner can normally be reached on M-F 9:00am-5:30pm.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Roberta A. Shand  
/R. A. S./  
Examiner, Art Unit 2472

/Brian D Nguyen/  
Primary Examiner, Art Unit 2472